

Abstract

In a CAD/CAM system providing freeform modeling of solids and surface, commands for modifying the geometry of an object can be designated to run concurrently, so as to reduce the number of steps required of the user in the design process. A command (or commands) can be designated as associative, so that the command is performed automatically whenever the geometry to which it is attached is modified. This leads to a further streamlining of the design process. The user may store an interactive scene as it is at any given time, with the current selections and tool representations, so that the work can be resumed later without the user having to redo interactions. With that, and in relation to parallel and associative commands, the system allows the user to capture all design constraints and dependencies throughout the whole lifetime of a design model.